AIR QUALITY PERMIT

Issued to: United Harvest, LLC
Moccasin Elevator
200 SW Market St., Suite 1780
Portland, OR 97201-5752

Permit: #3125-01
Complete Application Submitted: 11/19/07
Preliminary Determination Issued: 12/4/07
Department Decision Issued: 12/20/07
Final Permit Issued:
AFS#: 045-0001

An air quality permit, with conditions, is hereby granted to the United Harvest, LLC - Moccasin Elevator, hereinafter referred to as "United Harvest," pursuant to Sections 75-2-204 and 211 of the Montana Code Annotated (MCA), as amended, and Administrative Rules of Montana (ARM) 17.8.740, *et seq.*, as amended, for the following:

SECTION I: Permitted Facilities

A. Plant Location

United Harvest's rail loadout grain sub-terminal is located approximately 1 mile north of State Highway 87 and approximately 1.25 miles east-southeast of Moccasin, Montana. The legal description of the facility is the NW ¼ of Section 19, Township 15 North, Range 15 East, Judith Basin County, Montana. A complete list of permitted equipment is contained in the Permit Analysis to this permit.

B. Current Permit Action

On November 19, 2007, the Montana Department of Environmental Quality (Department) received a complete application for permit modification from United Harvest. Specifically, the current permit action increases the allowable production rate at the rail loadout grain sub-terminal from a maximum of 8,000,000 bushels per year (bu/yr) to a maximum of 10,000,000 bu/yr.

SECTION II: Conditions and Limitations

A. Emission Control Requirements and Limitations

1. United Harvest shall operate and maintain the negative air fan and cyclone as specified in their application for an air quality permit and all supporting documentation (ARM 17.8.752).

2. United Harvest shall not cause or authorize emissions to be discharged into the outdoor atmosphere, that exhibit an opacity of 20% or greater (ARM 17.8.304).

3. Rail loadout grain sub-terminal production shall not exceed 10,000,000 bushels during any rolling 12-month time period (ARM 17.8.749).

4. United Harvest shall not cause or authorize the use of any street, road, or parking area without taking reasonable precautions to control emissions of airborne particulate matter (ARM 17.8.308).

5. United Harvest shall treat all unpaved portions of the haul roads, access roads, and the general plant property with water and/or chemical dust suppressant as necessary to maintain compliance with the reasonable precautions limitation in Section II.A.4 (ARM 17.8.749).

B. Testing Requirements

1. All compliance source tests shall conform to the requirements of the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106).

2. The Department may require testing (ARM 17.8.105).

C. Operational Reporting Requirements

1. United Harvest shall supply the Department with annual production information for all emission points, as required by the Department in the annual emission inventory request. The request will include, but is not limited to, all sources of emissions identified in the equipment list contained in the permit analysis.

   Production information shall be gathered on a calendar-year basis and submitted to the Department by the date required in the emission inventory request. Information shall be in the units required by the Department. This information may be used for calculating operating fees, based on actual emissions from the facility, and/or to verify compliance with permit limitations (ARM 17.8.505).

2. United Harvest shall notify the Department of any construction or improvement project conducted pursuant to ARM 17.8.745, that would include a change in control equipment, stack height, stack diameter, stack flow, stack gas temperature, source location or fuel specifications, or would result in an increase in source capacity above its permitted operation or the addition of a new emission unit. The notice must be submitted to the Department, in writing, 10 days prior to start up or use of the proposed de minimis change, or as soon as reasonably practicable in the event of an unanticipated circumstance causing the de minimis change, and must include the information requested in ARM 17.8.745(1)(d) (ARM 17.8.745).

3. United Harvest shall document, by month, the total production from the rail loadout grain sub-terminal. By the 25th day of each month, United Harvest shall total the production from the rail loadout grain sub-terminal for the previous month. The monthly information will be used to verify compliance with the rolling 12-month limitation in Section II.A.3. The information for each of the previous months shall be submitted along with the annual emission inventory (ARM 17.8.749).

4. All records compiled in accordance with this permit must be maintained by United Harvest as a permanent business record for at least 5 years following the date of the measurement, must be available at the plant site for inspection by the Department, and must be submitted to the Department upon request (ARM 17.8.749).

D. Notification

   United Harvest shall provide the Department with written notification of all compliance source tests, as required by the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106 and ARM 17.8.749).

SECTION III: General Conditions

A. Inspection – United Harvest shall allow the Department's representatives access to the source at all reasonable times for the purpose of making inspections or surveys, collecting samples, obtaining data, auditing any monitoring equipment (CEMS, CERMS) or observing any monitoring or testing, and otherwise conducting all necessary functions related to this permit.

B. Waiver – The permit and the terms, conditions, and matters stated herein shall be deemed accepted if United Harvest fails to appeal as indicated below.

C. Compliance with Statutes and Regulations – Nothing in this permit shall be construed as relieving United Harvest of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided in ARM 17.8.740, *et seq*. (ARM 17.8.756).

D. Enforcement – Violations of limitations, conditions and requirements contained herein may constitute grounds for permit revocation, penalties, or other enforcement action as specified in Section 75-2-401, *et seq*., MCA.

E. Appeals – Any person or persons jointly or severally adversely affected by the Department's decision may request, within 15 days after the Department renders its decision, upon affidavit setting forth the grounds therefor, a hearing before the Board of Environmental Review (Board). A hearing shall be held under the provisions of the Montana Administrative Procedures Act. The filing of a request for a hearing does not stay the Department's decision, unless the Board issues a stay upon receipt of a petition and a finding that a stay is appropriate under Section 75-2-211(11)(b), MCA. The issuance of a stay on a permit by the Board postpones the effective date of the Department's decision until conclusion of the hearing and issuance of a final decision by the Board. If a stay is not issued by the Board, the Department's decision on the application is final 16 days after the Department's decision is made.

F. Permit Inspection – As required by ARM 17.8.755, Inspection of Permit, a copy of the air quality permit shall be made available for inspection by the Department at the location of the source.

G. Permit Fee – Pursuant to Section 75-2-220, MCA, as amended by the 1991 Legislature, failure to pay the annual operation fee by United Harvest may be grounds for revocation of this permit, as required by that section and rules adopted thereunder by the Board.

PERMIT ANALYSIS
United Harvest, LLC – Moccasin Elevator
Permit #3125-01

I. Introduction/Process Description

United Harvest, LLC (United Harvest) owns and operates a rail loadout grain sub-terminal that is located approximately 1 mile north of State Highway 87 and approximately 1.25 miles east-southeast of Moccasin, Montana. The legal description of the facility is the NW ¼ of Section 19, Township 15 North, Range 15 East, Judith Basin County, Montana.

A. Permitted Equipment

Equipment used at this facility includes all equipment listed in permit application #3125-00 including, but not limited to:

1. Truck Receiving Pit
2. Rail Reclaim Hopper Pit
3. Receiving Drag Conveyor - 20,000 bushels per hour (bph)
4. Receiving Leg - 20,000 bph
5. Distribution Top Binfill Drag Conveyor - 20,000 bph
6. Bottom Reclaim Drag Conveyor - 50,000 bph
7. Loadout Shipping Leg - 50,000 bph
8. Loadout Bulkweigher - 50,000 bph
9. Four Silo Bins with Vents - 164,500 bushels each
10. Auto Grain Sample & Collection System
11. Rail Loadout Spout - 50,000 bph
12. Negative Air/Cyclone Dust Control System

B. Source Description

The United Harvest rail loadout grain sub-terminal is designed to receive grain from local farmers and country elevators and then store the grain until it is shipped to market. The storage capacity of the facility is approximately 658,000 bushels and the allowable production rate at the rail loadout grain sub-terminal is a maximum of 10,000,000 bushels per year (bu/yr).

Locally grown grains are trucked in by hopper truck. Each truck is weighed on a platform scale and a probe takes a sample of the inbound grain for quality assurance measures. The trucks are then routed to the receiving building where both truck hoppers can be simultaneously discharged into an elongated receiving pit. Particulate matter emissions from the unloading operation are collected by a negative air system and routed to a cyclone for control. Enclosed drag conveyors and a bucket elevator, rated at 20,000 bushels per hour, route the grain into concrete storage silos, or to a bulk weigher located over the railroad track. An enclosed drag conveyor is used to transport grain from below the storage silos. Both the reclaim conveyor and the shipping leg are sized to handle 50,000 bushels per hour. The bulk loadout scale is sized to allow a 110-car unit train to be loaded in a 12-hour shift. Maximum allowable production at the rail loadout sub-terminal is limited to 10,000,000 bushels (bu) during any rolling 12-month time period.

C. Permit History

On October 7, 2000, United Harvest was issued **Permit #3125-00** for the installation and operation of a rail loadout grain sub-terminal and associated equipment to receive, store, and ship grain for

nearby farmers. The rail loadout grain sub-terminal had a storage capacity of approximately 658,000 bushels and a permitted maximum allowable production rate of 8,000,000 bu/yr.

D. Current Permit Action

On November 19, 2007, the Montana Department of Environmental Quality (Department) received a complete application for permit modification from United Harvest. Specifically, the current permit action increases the allowable production rate at the rail loadout grain sub-terminal from a maximum of 8,000,000 bu/yr to a maximum of 10,000,000 bu/yr. **Permit #3125-01** replaces Permit #3125-00.

E. Additional Information

Additional information, such as applicable rules and regulations, Best Available Control Technology (BACT)/Reasonably Available Control Technology (RACT) determinations, air quality impacts, and environmental assessments, is included in the analysis associated with each change to the permit.

II. Applicable Rules and Regulations

The following are partial explanations of some applicable rules and regulations that apply to the facility. The complete rules are stated in the Administrative Rules of Montana (ARM) and are available, upon request, from the Department of Environmental Quality (Department). Upon request, the Department will provide references for location of complete copies of all applicable rules and regulations or copies where appropriate.

A. ARM 17.8, Subchapter 1 – General Provisions, including but not limited to:

1. ARM 17.8.101 Definitions. This rule includes a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.

2. ARM 17.8.105 Testing Requirements. Any person or persons responsible for the emission of any air contaminant into the outdoor atmosphere shall, upon written request of the Department, provide the facilities and necessary equipment (including instruments and sensing devices) and shall conduct tests, emission or ambient, for such periods of time as may be necessary using methods approved by the Department.

3. ARM 17.8.106 Source Testing Protocol. The requirements of this rule apply to any emission source testing conducted by the Department, any source or other entity as required by any rule in this chapter, or any permit or order issued pursuant to this chapter, or the provisions of the Clean Air Act of Montana, 75-2-101, *et seq*., Montana Code Annotated (MCA).

   United Harvest shall comply with the requirements contained in the Montana Source Test Protocol and Procedures Manual, including, but not limited to, using the proper test methods and supplying the required reports. A copy of the Montana Source Test Protocol and Procedures Manual is available from the Department upon request.

4. ARM 17.8.110 Malfunctions. (2) The Department must be notified promptly by telephone whenever a malfunction occurs that can be expected to create emissions in excess of any applicable emission limitation or to continue for a period greater than 4 hours.

5. ARM 17.8.111 Circumvention. (1) No person shall cause or permit the installation or use of any device or any means that, without resulting in reduction of the total amount of air contaminant emitted, conceals or dilutes an emission of air contaminant that would otherwise

violate an air pollution control regulation. (2) No equipment that may produce emissions shall be operated or maintained in such a manner as to create a public nuisance.

B. ARM 17.8, Sub-Chapter 2, Ambient Air Quality, including, but not limited to:

1. ARM 17.8.220 Ambient Air Quality Standard for Settled Particulate Matter, and
2. ARM 17.8.223 Ambient Air Quality Standard for PM_{10}.

United Harvest must maintain compliance with the applicable ambient air quality standards.

C. ARM 17.8, Sub-Chapter 3, Emission Standards, including, but not limited to:

1. ARM 17.8.304 Visible Air Contaminants. This rule requires that no person may cause or authorize emissions to be discharged into the outdoor atmosphere from any source installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes.

2. ARM 17.8.308 Particulate Matter, Airborne. (1) This rule requires an opacity limitation of less than 20% for all fugitive emission sources and that reasonable precautions be taken to control emissions of airborne particulate matter. (2) Under this rule, United Harvest shall not cause or authorize the use of any street, road, or parking lot without taking reasonable precautions to control emissions of airborne particulate matter.

3. ARM 17.8.310 Particulate Matter, Industrial Process. This rule requires that no person shall cause, allow, or permit to be discharged into the atmosphere particulate matter in excess of the amount set forth in this rule.

4. ARM 17.8.340 Standard of Performance for New Stationary Sources and Emission Guidelines for Existing Sources. This rule incorporates, by reference, 40 CFR Part 60, Standards of Performance for New Stationary Sources (NSPS). This facility is not an NSPS affected source because it does not meet the definition of any NSPS subpart defined in 40 CFR Part 60.

   40 CFR 60, Subpart DD, Standards of Performance for Grain Elevators

   This subpart states that grain terminal elevators that have a storage capacity of more than 2.5 million U.S. bushels are subject to the requirements of this subpart. United Harvest does not have a permanent storage capacity of 2.5 million bushels or more; therefore, 40 CFR 60, Subpart DD, does not apply to this facility.

D. ARM 17.8, Sub-Chapter 5, Air Quality Permit Application, Operation and Open Burning Fees, including, but not limited to:

1. ARM 17.8.504 Air Quality Permit Application Fees. This rule requires that an applicant submit an air quality permit application fee concurrent with the submittal of an air quality permit application. A permit application is incomplete until the proper application fee is paid to the Department. United Harvest submitted the required permit application fee for the current permit action.

2. ARM 17.8.505 Air Quality Operation Fees. An annual air quality operation fee must, as a condition of continued operation, be submitted to the Department by each source of air contaminants holding an air quality permit (excluding an open burning permit) issued by the Department. The air quality operation fee is based on the actual or estimated actual amount of air pollutants emitted during the previous calendar year.

An air quality operation fee is separate and distinct from an air quality permit application fee. The annual assessment and collection of the air quality operation fee, described above, shall take place on a calendar-year basis. The Department may insert into any final permit issued after the effective date of these rules, such conditions as may be necessary to require the payment of an air quality operation fee on a calendar-year basis, including provisions that prorate the required fee amount.

E. ARM 17.8, Subchapter 7 – Permit, Construction, and Operation of Air Contaminant Sources, including, but not limited to:

1. ARM 17.8.740 Definitions. This rule is a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.

2. ARM 17.8.743 Montana Air Quality Permits--When Required. This rule requires a person to obtain an air quality permit or permit alteration to construct, alter, or use any air contaminant sources that have the potential to emit (PTE) greater than 25 tons per year of any pollutant. United Harvest has a PTE greater than 25 tons per year of particulate matter (PM); therefore, an air quality permit is required.

3. ARM 17.8.744 Montana Air Quality Permits--General Exclusions. This rule identifies the activities that are not subject to the Montana Air Quality Permit program.

4. ARM 17.8.745 Montana Air Quality Permits--Exclusion for De Minimis Changes. This rule identifies the de minimis changes at permitted facilities that do not require a permit under the Montana Air Quality Permit Program.

5. ARM 17.8.748 New or Modified Emitting Units--Permit Application Requirements. (1) This rule requires that a permit application be submitted prior to installation, alteration, or use of a source. United Harvest submitted the required permit application for the current permit action. (7) This rule requires that the applicant notify the public by means of legal publication in a newspaper of general circulation in the area affected by the application for a permit. United Harvest submitted an affidavit of publication of public notice for the November 1, 2007, issue of the *Judith Basin Press*, a newspaper of general circulation in the Town of Stanford in Judith Basin County, as proof of compliance with the public notice requirements.

6. ARM 17.8.749 Conditions for Issuance or Denial of Permit. This rule requires that the permits issued by the Department must authorize the construction and operation of the facility or emitting unit subject to the conditions in the permit and the requirements of this subchapter. This rule also requires that the permit must contain any conditions necessary to assure compliance with the Federal Clean Air Act (FCAA), the Clean Air Act of Montana, and rules adopted under those acts.

7. ARM 17.8.752 Emission Control Requirements. This rule requires a source to install the maximum air pollution control capability that is technically practicable and economically feasible, except that BACT shall be utilized. The required BACT analysis is included in Section III of this permit analysis.

8. ARM 17.8.755 Inspection of Permit. This rule requires that air quality permits shall be made available for inspection by the Department at the location of the source.

9. ARM 17.8.756 Compliance with Other Requirements. This rule states that nothing in the permit shall be construed as relieving United Harvest of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided in ARM 17.8.740, *et seq*.

10. ARM 17.8.759 Review of Permit Applications. This rule describes the Department's responsibilities for processing permit applications and making permit decisions on those permit applications that do not require the preparation of an environmental impact statement.

11. ARM 17.8.762 Duration of Permit. An air quality permit shall be valid until revoked or modified, as provided in this subchapter, except that a permit issued prior to construction of a new or altered source may contain a condition providing that the permit will expire unless construction is commenced within the time specified in the permit, which in no event may be less than 1 year after the permit is issued.

12. ARM 17.8.763 Revocation of Permit. An air quality permit may be revoked upon written request of the permittee, or for violations of any requirement of the Clean Air Act of Montana, rules adopted under the Clean Air Act of Montana, the FCAA, rules adopted under the FCAA, or any applicable requirement contained in the Montana State Implementation Plan (SIP).

13. ARM 17.8.764 Administrative Amendment to Permit. An air quality permit may be amended for changes in any applicable rules and standards adopted by the Board of Environmental Review (Board) or changed conditions of operation at a source or stack that do not result in an increase of emissions as a result of those changed conditions. The owner or operator of a facility may not increase the facility's emissions beyond permit limits unless the increase meets the criteria in ARM 17.8.745 for a de minimis change not requiring a permit, or unless the owner or operator applies for and receives another permit in accordance with ARM 17.8.748, ARM 17.8.749, ARM 17.8.752, ARM 17.8.755, and ARM 17.8.756, and with all applicable requirements in ARM Title 17, Chapter 8, Subchapters 8, 9, and 10.

14. ARM 17.8.765 Transfer of Permit. This rule states that an air quality permit may be transferred from one person to another if written notice of intent to transfer, including the names of the transferor and the transferee, is sent to the Department.

F. ARM 17.8, Subchapter 8 – Prevention of Significant Deterioration of Air Quality, including, but not limited to:

1. ARM 17.8.801 Definitions. This rule is a list of applicable definitions used in this subchapter.

2. ARM 17.8.818 Review of Major Stationary Sources and Major Modifications--Source Applicability and Exemptions. The requirements contained in ARM 17.8.819 through ARM 17.8.827 shall apply to any major stationary source and any major modification, with respect to each pollutant subject to regulation under the FCAA that it would emit, except as this subchapter would otherwise allow.

This facility is not a major stationary source since this facility is not a listed source and the facility's PTE is below 250 tons per year of any pollutant (excluding fugitive emissions).

III. Emission Inventory

Emission Inventory (tons pollutant/year)*			
Source	**PM**	**PM_{10}**	**$PM_{2.5}$**
Grain Receiving	10.8	3.52	0.60
Enclosed Material Handling	9.11	5.08	0.90
Grain Shipping	12.84	4.33	0.73
Total Emissions	**32.75**	**12.93**	**2.23**
* Facility does not incorporate any combustion sources; therefore, only PM, PM_{10}, and $PM_{2.5}$ emissions resulting from material handling/processing activities have been quantified.			

Maximum Annual Throughput = 10,000,000 bushels/year (Permit Limit)

Product Density = 59.73 lb/bushel (AP-42, Appendix A)
Process Rate Calculation = 59.73 lb/bushel * 10.0 x 10^6 bushel/yr * 0.0005 ton/lb = 298,650 tons/year

Grain Receiving

PM Emissions
Emission Factor = 0.18 lb/ton {AP-42, Table 9.9.1-1, 3/03, Straight Truck}
Control Efficiency = 60 % {Negative Air / Cyclone}
Calculations: 298,650 tons/yr * 0.18 lb/ton * (1 – 0.60) * 0.0005 ton/lb = 10.75 tons/year

PM_{10} Emissions
Emission Factor = 0.059 lb/ton {AP-42, Table 9.9.1-1, 3/03, Straight Truck}
Control Efficiency = 60 % {Negative Air / Cyclone}
Calculations: 298,650 tons/yr * 0.059 lb/ton * (1 – 0.60) * 0.0005 ton/lb = 3.52 tons/year

$PM_{2.5}$ Emissions
Emission Factor = 0.010 lb/ton {AP-42, Table 9.9.1-1, 3/03, Straight Truck}
Control Efficiency = 60 % {Negative Air / Cyclone}
Calculations: 298,650 tons/yr * 0.010 lb/ton * (1 – 0.60) * 1 ton / 2,000 lb = 0.60 tons/year

Enclosed Material Handling

PM Emissions
Emission Factor = 0.061 lb/ton {AP-42, Table 9.9.1-1, 3/03}
Control Efficiency = 0 %
Calculations: 298,650 tons/yr * 0.061 lb/ton * 0.0005 ton/lb = 9.11 tons/year

PM_{10} Emissions
Emission Factor = 0.034 lb/ton {AP-42, Table 9.9.1-1, 3/03}
Control Efficiency = 0 %
Calculations: 298,650 tons/yr * 0.034 lb/ton * 0.0005 ton/lb = 5.08 tons/year

$PM_{2.5}$ Emissions
Emission Factor = 0.0058 lb/ton {AP-42, Table 9.9.1-1, 3/03}
Control Efficiency = 0 %
Calculations: 298,650 tons/yr * 0.0058 lb/ton * 0.0005 ton/lb = 0.90 tons/year

Grain Shipping

PM Emissions
Emission Factor = 0.086 lb/ton {AP-42, Table 9.9.1-1, 3/03, Truck}
Control Efficiency = 0 %
Calculations: 298,650 tons/yr * 0.086 lb/ton * 0.0005 ton/lb = 12.84 tons/year

PM_{10} Emissions
Emission Factor = 0.029 lb/ton {AP-42, Table 9.9.1-1, 3/03, Truck}
Control Efficiency = 0 %
Calculations: 298,650 tons/yr * 0.029 lb/ton * 0.0005 ton/lb = 4.33 tons/year

$PM_{2.5}$ Emissions
Emission Factor = 0.034 lb/ton {AP-42, Table 9.9.1-1, 3/03}
Control Efficiency = 0 %
Calculations: 298,650 tons/yr * 0.0049 lb/ton * 0.0005 ton/lb = 0.73 tons/year

IV. Best Available Control Technology Analysis

A BACT analysis is required for any new or altered source. United Harvest shall install on the new or altered source the maximum air pollution control capability which is technically practicable and

economically feasible, except that BACT shall be used. The following are the options the Department has reviewed to make a BACT determination for the proposed facility.

A. Electrostatic Precipitator (ESP)

An ESP charges particles and then forces them out of the air-stream by passing them through a charged field. ESP's are very efficient at removing small particles, with removal efficiencies commonly ranging from 90 to 99%.

While ESP's can achieve high removal efficiencies, the installation and operation costs of the ESP are considerably higher than similar control technologies. Further, considering the relatively low level of emissions associated with the permitted source, the costs associated with ESP control are not cost-effective for the proposed project. Therefore, an ESP does not constitute BACT in this case.

B. Baghouse

Fabric filters are used to collect dust. The air stream passes through the fabric filter and the dust is collected by the filter cake that forms on the bags. Baghouses are also very efficient at removing small particles, with removal efficiencies commonly ranging from 95 to 99%.

Baghouses can achieve high removal efficiencies while the installation and operation costs of a baghouse are less than an ESP. However, considering the relatively low level of emissions associated with the permitted source, the costs associated with baghouse are not cost-effective for the proposed project. Therefore, a baghouse does not constitute BACT in this case.

C. Cyclone

A cyclone acts as an inertial separator, which is very effective at separating the larger, coarser material from a gas stream. A cyclone has a lower collection efficiency for smaller diameter particles. Typical collection efficiencies of a cyclone range from 50 to 90%, depending on the particle size.

The negative air fan and cyclone proposed by United Harvest are considered to be high efficiency controls. These controls provide high control efficiencies without the added cost of a baghouse or an ESP. Therefore, the Department has determined that the operation and maintenance of a negative air fan and cyclone constitute BACT for this facility.

The control options selected have controls and control costs comparable to other recently permitted similar sources and are capable of achieving the appropriate emissions standards.

V. Existing Air Quality and Impacts

The area surrounding the proposed facility is predominantly agricultural and rural in nature. The emissions from the proposed modification would be similar to those impacts associated with the initial permit, would be seasonal in nature, and there is generally good dispersion in the area. Therefore, in the view of the Department, the amount of controlled emissions from this facility will not cause an exceedance of any ambient air quality standard.

VI. Taking or Damaging Implication Analysis

As required by 2-10-101 through 105, MCA, the Department has conducted a private property taking and damaging assessment and has determined there are no taking or damaging implications.

VII. Environmental Assessment

An environmental assessment, required by the Montana Environmental Policy Act, was completed for this permitting action. A copy is attached.

DEPARTMENT OF ENVIRONMENTAL QUALITY
Permitting and Compliance Division
Air Resources Management Bureau
P.O. Box 200901, Helena, Montana 59620
(406) 444-3490

FINAL ENVIRONMENTAL ASSESSMENT (EA)

Issued For: United Harvest, LLC
Moccasin Elevator
200 SW Market Street, Suite 1780
Portland, OR 97201-5752

Air Quality Permit Number: #3125-01
Preliminary Determination Issued: December 4, 2007
Department Decision Issued: December 20, 2007
Final Permit Issued:

1. Legal Description of Site: The modified rail loadout grain sub-terminal would be located approximately 1 mile north of State Highway 87, and approximately 1.25 miles east-southeast of Moccasin, Montana. The legal description of the facility would be the NW ¼ of Section 19, Township 15 North, Range 15 East, Judith Basin County, Montana.

2. Description of Project: The Department proposes to issue a modified Montana Air Quality Permit to United Harvest for an increase in allowable material handling/production at the permitted rail loadout grain sub-terminal. All aspects of the previously permitted facility would remain the same with the exception of the proposed increase in allowable material handling/production.

3. Objectives of Project: Increased business and revenue. The proposed facility would continue to receive, store, and ship grain for the area farmers. The proposed facility would provide area producers and local county grain elevators with a regional site for high speed loading of locally produced whole grains. The high-speed rail loading should result in more favorable shipping rates from the local railroad.

4. Alternatives Considered: In addition to the proposed action, the Department also considered the "no action" alternative. The "no action" alternative would deny the issuance of the air quality preconstruction permit to the proposed facility. However, the Department does not consider the "no action" alternative to be appropriate because United Harvest has demonstrated compliance with all applicable rules and regulations as required for permit issuance. Therefore, the "no action" alternative was eliminated from further consideration.

5. A listing of mitigation, stipulations, and other controls: A list of enforceable conditions, including a BACT analysis, would be included in permit #3125-01.

6. Regulatory effects on private property: The Department has considered alternatives to the conditions that would be imposed in this permit as part of the permit development. The Department has determined that the permit conditions would be reasonably necessary to ensure compliance with applicable requirements and demonstrate compliance with those requirements and do not unduly restrict private property rights.

7. The following table summarizes the potential physical and biological effects of the proposed project on the human environment. The "no action" alternative was discussed previously.

Potential Physical and Biological Effects							
		Major	Moderate	Minor	None	Unknown	Comments Included
A	Terrestrial and Aquatic Life and Habitats			X			yes
B	Water Quality, Quantity, and Distribution			X			yes
C	Geology and Soil Quality, Stability, and Moisture				X		yes
D	Vegetation Cover, Quantity, and Quality			X			yes
E	Aesthetics				X		yes
F	Air Quality			X			yes
G	Unique Endangered, Fragile, or Limited Environmental Resource			X			yes
H	Demands on Environmental Resource of Water, Air, and Energy			X			yes
I	Historical and Archaeological Sites			X			yes
J	Cumulative and Secondary Impacts			X			yes

SUMMARY OF COMMENTS ON POTENTIAL PHYSICAL AND BIOLOGICAL EFFECTS: The following comments have been prepared by the Department.

A. Terrestrial and Aquatic Life and Habitats

The proposed increase in allowable material handling/production capacity would result in adverse impacts to the terrestrial life and habitats in the immediate area of the proposed project. However, because the proposed project would result in only minor increases in allowable particulate matter (PM), particulate matter less than or equal to 10 microns (PM_{10}), and particulate matter less than or equal to 2.5 microns ($PM_{2.5}$) emissions, any impacts to the terrestrial life or habitats in the project area would be minor and consistent with existing impacts.

B. Water Quality, Quantity, and Distribution

The facility would continue to utilize a well for drinking water. There would be a septic system and drainfield for wastewater and human sewage. There are no wetlands at or near the site. A geotechnical analysis found groundwater at about 45 feet. Impacts from the proposed project would be identical to impacts realized with the existing permitted facility; therefore, the proposed project would result in only minor impacts to the water quality, quantity, and distribution in the project area.

C. Geology and Soil Quality, Stability, and Moisture

The proposed increase in allowable material handling/production capacity would not result in any additional or new impacts to the geology and soil quality, stability, and moisture in the project area. The current permit action does not require any additional or new construction at the existing grain elevator site.

D. Vegetation Cover, Quantity, and Quality

The proposed increase in allowable material handling/production capacity would result in adverse impacts to the vegetation cover, quantity, and quality in the immediate area of the proposed project due to a minor increase in allowable emissions and subsequent pollutant deposition associated with the increased activities. However, because the proposed project would result in only minor increases in allowable PM, PM_{10}, and $PM_{2.5}$ emissions, any impacts to the terrestrial life or habitats in the project area would be minor and consistent with existing impacts.

E. Aesthetics

The proposed increase in allowable material handling/production capacity would not result in any additional or new impacts to the aesthetics of the project area. The current permit action does not require any additional or new construction at the existing grain elevator site.

F. Air Quality

The proposed increase in allowable material handling/production capacity would result in adverse impacts to the air quality in the immediate area of the proposed project due to a minor increase in allowable emissions and subsequent pollutant deposition associated with the increased activities. However, because the proposed project would result in only minor increases in allowable PM, PM_{10}, and $PM_{2.5}$ emissions, any impacts to the air quality in the project area would be minor and consistent with existing impacts.

G. Unique Endangered, Fragile, or Limited Environmental Resources

The proposed increase in allowable material handling/production capacity would result in adverse impacts to any existing unique endangered, fragile, or limited environmental resource in the immediate area of the proposed project due to a minor increase in allowable emissions and subsequent pollutant deposition associated with the increased activities. However, because the proposed project would result in only minor increases in allowable PM, PM_{10}, and $PM_{2.5}$ emissions, any impacts to the terrestrial life or habitats in the project area would be minor and consistent with existing impacts.

Further, under the initial permit action for the United Harvest facility, the Department contacted the Montana Natural Heritage Program (MNHP) in an effort to identify any species of special concern associated with the proposed site location. Search results found no records of species of special concern in the area. Area, in this case, is defined by the township and range of the proposed site, with an additional 1-mile buffer. Therefore, the Department is not aware of any unique endangered, fragile, or limited environmental resource that would potentially be impacted by the proposed project.

H. Demands on Environmental Resource of Water, Air, and Energy

The proposed increase in allowable material handling/production capacity would not result in any additional or new impacts to the demands on the environmental resource of water in the project area, as described in Section 7.B of this EA. Further, the increased allowable material handling/production rate could result in minor impacts to the environmental resource of energy due to increased activity. However, due to the relatively small increase in allowable activities, any impacts to the environmental resource of energy would be minor and consistent with current impacts. Finally, the proposed project would result in only minor impacts to the environmental resource of air, as described in Section 7.F of this EA.

I. Historical and Archaeological Sites

The proposed increase in allowable material handling/production capacity would result in adverse impacts to any existing historical and archaeological site in the immediate area of the proposed project due to a minor increase in allowable emissions and subsequent pollutant deposition associated with the increased activities. However, because the proposed project would result in only minor increases in allowable PM, PM_{10}, and $PM_{2.5}$ emissions, any impacts to the terrestrial life or habitats in the project area would be minor and consistent with existing impacts.

Further, under the initial permit action for the United Harvest facility, the Department contacted the Montana Historical Society (MHS) in an effort to identify any known historical, cultural, or archaeological sites located on or near the proposed site. The MHS cultural resource file search revealed one such site within the search area. The site (24JT231) is a historic railroad. Under the

initial permit action, the Department determined that the proposed project would have minor impacts on such historical and archaeological sites. At that time, the MHS commented that "… based on the lack of previous inventory, the presence of cultural properties, and the low topography of the area that there is a high probability that sites may be impacted by this undertaking. Therefore we would recommend a reconnaissance survey be conducted in order to determine whether or not existing sites will be impacted or if new ones exist." Because the current permit action would be consistent with the initial permit action, the Department determined that any impacts resulting from the proposed project would be minor and consistent with current impacts.

J. Cumulative and Secondary Impacts

The initial permit action identified only minor cumulative and secondary impacts to the physical and biological aspects of the human environment as a result of the initial permit action. Because the proposed increase in allowable material handling/production capacity would result in only minor and consistent impacts when compared to those impacts realized under the initial permitting action, any cumulative and secondary impacts resulting from the proposed project would be minor.

8. The following table summarizes the potential social and economic effects of the proposed project on the human environment. The "no action" alternative was discussed previously.

Potential Social and Economic Effects							
		Major	Moderate	Minor	None	Unknown	Comments Included
A	Social Structures and Mores				X		yes
B	Cultural Uniqueness and Diversity				X		yes
C	Local and State Tax Base and Tax Revenue			X			yes
D	Agricultural or Industrial Production			X			yes
E	Human Health			X			yes
F	Access to and Quality of Recreational and Wilderness Activities				X		yes
G	Quantity and Distribution of Employment				X		yes
H	Distribution of Population				X		yes
I	Demands for Government Services			X			yes
J	Industrial and Commercial Activity			X			yes
K	Locally Adopted Environmental Plans and Goals				X		yes
L	Cumulative and Secondary Impacts			X			yes

SUMMARY OF COMMENTS ON POTENTIAL SOCIAL AND ECONOMIC EFFECTS: The following comments have been prepared by the Department.

A. Social Structures and Mores
B. Cultural Uniqueness and Diversity

The proposed increase in allowable material handling/production capacity would not result in any additional or new impacts to the above referenced social and economic aspects of the human environment in the proposed project area. The current permit action would not affect existing operations at the permitted facility as they relate to these social and economic resources of the human environment.

C. Local and State Tax Base and Tax Revenue

Due to the minor increase in business and revenue associated with the proposed project, the proposed increase in allowable material handling/production capacity would have a minor impact

on the local and state tax base and tax revenue. The proposed facility would continue to serve a need and generate only a minor increase in local revenue.

D. Agricultural or Industrial Production

The proposed increase in allowable material handling/production capacity could result in a minor increase in agricultural production in the area. Area farmers would have increased access to a local facility to receive, store, and ship their products. The proposed project would not impact any industrial production in the area.

E. Human Health

The proposed increase in allowable material handling/production capacity would result in adverse impacts to the air quality in the immediate area of the proposed project due to a minor increase in allowable emissions and subsequent pollutant deposition associated with the increased activities. However, because the proposed project would result in only minor increases in allowable PM, PM_{10}, and $PM_{2.5}$ emissions, any impacts to the air quality in the project area would be minor and consistent with existing impacts. The air quality permit incorporates conditions to ensure that the proposed facility would be operated in compliance with all applicable rules and standards. These rules and standards are designed to be protective of human health.

F. Access to and Quality of Recreational and Wilderness Activities

The proposed increase in allowable material handling/production capacity would not impact any access to and quality of recreational and wilderness activities in the project area.

G. Quantity and Distribution of Employment
H. Distribution of Population

The proposed increase in allowable material handling/production capacity would not impact the above referenced social and economic resources of the human environment, as no new or additional staff would be required to accommodate the proposed project.

I. Demands of Government Services

Demands on government services from this facility would be minor. Minor increases may be seen in grain truck traffic on existing roads in the area as a result of the increase in allowable material handling/production under the current permit action. Further, the acquisition of the appropriate permits by the facility would require minor services from the government. Overall, any demand for government services would be minor.

J. Industrial and Commercial Activity

The proposed increase in allowable material handling/production capacity would not result in an increase in the industrial activity in the area. The proposed project would not result in any new construction activities at the existing facility and would not impact existing commercial activities in the area.

K. Locally Adopted Environmental Plans and Goals

The Department is not aware of any locally adopted environmental plans or goals. The state standards would protect the local site and the surrounding environment.

L. Cumulative and Secondary Impacts

The initial permit action identified only minor cumulative and secondary impacts to the social and economic aspects of the human environment as a result of the initial permit action. Because the

proposed increase in allowable material handling/production capacity would result in only minor and consistent impacts when compared to those impacts realized under the initial permitting action, any cumulative and secondary impacts resulting from the proposed project would be minor.

Recommendation: No Environmental Impact Statement (EIS) is required.

If an EIS is not required, explain why the EA is an appropriate level of analysis: The current permitting action is for the construction and operation of a rail loadout grain sub-terminal. Permit #3125-01 would include conditions and limitations to ensure the facility would operate in compliance with all applicable air quality rules and regulations. In addition, there are no major or unknown effects associated with this proposal.

Other groups or agencies contacted or which may have overlapping jurisdiction: Montana Natural Heritage Program and the Montana Historical Society.

Individuals or groups contributing to this EA: Montana Department of Environmental Quality, Montana Natural Heritage Program, Montana Historical Society.

EA prepared by: M. Eric Merchant
Date: November 19, 2007